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**From:** Gallo, Patty (CONTR) [Patty.Gallo@lm.doe.gov]  
**Sent:** 3/13/2017 10:39:58 PM  
**To:** Surovchak, Scott [Scott.Surovchak@lm.doe.gov]; Smith, Patricia [Smith.Patricia@epa.gov]; Murl, Jeffrey [Jeffrey.Murl@lm.doe.gov]; 'Carl Spreng (carl.spreng@state.co.us)' (carl.spreng@state.co.us) [carl.spreng@state.co.us]; Moritz, Vera [Moritz.Vera@epa.gov]; lindsay.masters@state.co.us  
**CC:** Kaiser, Linda (CONTR) [Linda.Kaiser@lm.doe.gov]; Ward, David (CONTR) [David.Ward@lm.doe.gov]  
**Subject:** RE: Protectiveness statement for Rocky Flats FYR

All:

I thought we might revisit the protectiveness statement one more time before the draft document is published on March 24. Below is what I did to try and address everyone's concerns. Please feel free to revise the language directly in this email and return to me. If we need a conference call or meeting to discuss, I would be happy to set one up – please let me know your thoughts. Thanks.

**I revised the second paragraph of Section 2.0 Background as follows:**

"Investigation and cleanup of the RFP began in the 1980s, while the plant was still operating. In 1989, the RFP was placed on the CERCLA National Priorities List (NPL). Soon thereafter, the RFP mission transitioned from nuclear weapons production to cleanup and closure. Considerable remediation of the RFP took place during the late 1990s and early 2000s as interim measures/interim removal actions under the Rocky Flats Cleanup Agreement (RFCA). This agreement, signed by DOE, EPA, and CDPHE, adopted an accelerated action approach to cleanup. The interim measures/interim removal actions completed during accelerated cleanup included the construction and operation of four groundwater treatment systems, installation of engineered covers at the two landfills, decontamination and removal of RFP buildings and other structures, and removal and offsite disposal of contaminated soils and sediments. DOE completed cleanup and closure of the COU in 2005. A *RCRA Facility Investigation – Remedial Investigation/Corrective Measures Study – Feasibility Study* (RI/FS Report) (DOE 2006) was then completed that analyzed conditions within the COU following cleanup in light of the interim actions that had already been completed. The primary contaminants, contaminated media, and waste remaining in the COU include: ..."

**The protectiveness statement at the end of the ES and in Section 8.0, *Protectiveness Statement* was revised as follows:**

The remedy at the COU, as identified in the CAD/ROD, is protective of human health and the environment. Interim removal actions completed prior to the CAD/ROD included the removal of contaminated soils and sediments, decontamination and removal of equipment and buildings, construction of soil cover systems at the two landfills, and the construction and operation of four groundwater treatment systems. With selection of the final remedy for the COU, a monitoring and maintenance plan was put in place to assure the long-term integrity of the remedy. Routine inspections of engineered remedy components ensure that remedy maintenance and repairs are identified and implemented in a timely manner. Groundwater treatment systems continue to reduce contaminant load to surface water. Optimization of groundwater treatment systems is occurring to further reduce contaminant concentrations entering surface water. Surface and groundwater monitoring and sampling provide assurance that water quality at the COU boundary is protective. Institutional controls are effective in preventing unacceptable exposures to residual contamination by prohibiting building construction, controlling intrusive activities, restricting use of groundwater and surface water, and protecting engineered remedy components. Physical controls are effective at controlling access to the COU. No issues or recommendations that affect the protectiveness of the remedy in the COU were identified in this FYR.

Because the remedial actions at the COU are protective and the other OUs associated with the former RFP (POU and OU3) are suitable for unlimited use/unrestricted exposure (UU/UE), the site is protective of human health and the environment.

*Patty*

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**From:** Surovchak, Scott  
**Sent:** Wednesday, March 08, 2017 1:39 PM  
**To:** 'Smith, Patricia'; Gallo, Patty (CONTR)  
**Cc:** Kaiser, Linda (CONTR); Ward, David (CONTR); 'Carl Spreng ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us))' ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us)); Murl, Jeffrey; Moritz, Vera; [lindsay.masters@state.co.us](mailto:lindsay.masters@state.co.us)  
**Subject:** RE: Protectiveness statement for Rocky Flats FYR

Everybody is correct here! The CAD/ROD utilized all the information collected in the RI and evaluated in the FS and CRA, including the results of the interim actions (Building D&D, landfill covering/capping, GW treatment system installation, soil removal, off-site waste disposal, and various other interim actions) to arrive at the final remedy of ICs, Physical Controls (which includes the IM/IRAs under RFCA during site closure) and monitoring of both. Essentially, the IM/IRAs completed during closure left the site within the CERCLA risk range and all that was left to do was document and put in place the controls and monitor to "ensure that both human health and the environment will be adequately protected."

So how do we say that to everybody's satisfaction?

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**From:** Smith, Patricia [<mailto:Smith.Patricia@epa.gov>]  
**Sent:** Wednesday, March 08, 2017 12:27 PM  
**To:** Gallo, Patty (CONTR)  
**Cc:** Kaiser, Linda (CONTR); Ward, David (CONTR); 'Carl Spreng ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us))' ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us)); Surovchak, Scott; Murl, Jeffrey; Moritz, Vera; [lindsay.masters@state.co.us](mailto:lindsay.masters@state.co.us); Smith, Patricia  
**Subject:** RE: Protectiveness statement for Rocky Flats FYR

Where's Vera to give me a reality check when I need one? Here's my thinking:

One, it's my understanding that the CAD/ROD adopted these interim remedies already in place, and agreed to maintain them. If not, the president made a remedial decision in the IM/IRAs and they would be subject to separate review. Let's not go there. Perhaps adding "in early actions" to the end of the 2<sup>nd</sup> sentence would help.

Two, don't you think leaving that information out looks like a real gap? How would the public view such fundamental missing pieces?

Three, haz waste project management generally follows the following logic: source control, pathway control (GW, SW, etc.), ICs for things that the engineered part of the remedy didn't cover. The ICs come last because they are fill gaps in the rest of the remedy.

Pat Smith, RPM  
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303-312-6504

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**From:** Gallo, Patty (CONTR) [<mailto:Patty.Gallo@lm.doe.gov>]  
**Sent:** Wednesday, March 08, 2017 11:20 AM  
**To:** Smith, Patricia <[Smith.Patricia@epa.gov](mailto:Smith.Patricia@epa.gov)>  
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**Subject:** RE: Protectiveness statement for Rocky Flats FYR

Pat,

I wanted to follow up with you regarding your suggestion of leading with source controls and not ICs. The Rocky Flats CAD/ROD names the selected remedy for the COU as "...institutional and physical controls, incorporating continued monitoring and maintenance." This is why, as you pointed out in the meeting last week, the FYR report leads with ICs. It is my understanding that the source controls at the site (landfill covers, groundwater treatment systems) were put into place as part of 'interim measures/interim removal actions' during cleanup. The second sentence in the protectiveness statement you provided "Contaminated soils, sediments, equipment and buildings have been removed, and landfills and residual contamination have been capped" are all interim actions that were completed prior to the final remedy being selected in the 2006 CAD/ROD. So I guess I am struggling a bit with how the interim actions fit into a protectiveness statement for the final remedy – what are your thoughts?

P.S. At a minimum, I will ensure that the information in your statement regarding the interim actions (Contaminated soil, sediments...) is captured in the Background section of the FYR report and the Site Chronology for completeness.



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**From:** Smith, Patricia [<mailto:Smith.Patricia@epa.gov>]  
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**To:** Gallo, Patty (CONTR); 'Carl Spreng ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us))' ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us)); [lindsay.masters@state.co.us](mailto:lindsay.masters@state.co.us); Murl, Jeffrey; Moritz, Vera; Surovchak, Scott  
**Cc:** Kaiser, Linda (CONTR); Ward, David (CONTR); Smith, Patricia  
**Subject:** RE: Protectiveness statement for Rocky Flats FYR

My recommendation for revising the text below is attached. It is more specific about your remedial actions, and you'll see a slightly stronger connection to objectives in the RAO summary table. I recommend leading with source controls, not ICs.

Pat Smith, RPM  
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**From:** Gallo, Patty (CONTR) [<mailto:Patty.Gallo@lm.doe.gov>]  
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**To:** 'Carl Spreng ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us))' ([carl.spreng@state.co.us](mailto:carl.spreng@state.co.us)) <[carl.spreng@state.co.us](mailto:carl.spreng@state.co.us)>; [lindsay.masters@state.co.us](mailto:lindsay.masters@state.co.us); Murl, Jeffrey <[Jeffrey.Murl@lm.doe.gov](mailto:Jeffrey.Murl@lm.doe.gov)>; Moritz, Vera <[Moritz.Vera@epa.gov](mailto:Moritz.Vera@epa.gov)>; Surovchak, Scott <[Scott.Surovchak@lm.doe.gov](mailto:Scott.Surovchak@lm.doe.gov)>; Smith, Patricia <[Smith.Patricia@epa.gov](mailto:Smith.Patricia@epa.gov)>  
**Cc:** Kaiser, Linda (CONTR) <[Linda.Kaiser@lm.doe.gov](mailto:Linda.Kaiser@lm.doe.gov)>; Ward, David (CONTR) <[David.Ward@lm.doe.gov](mailto:David.Ward@lm.doe.gov)>  
**Subject:** Protectiveness statement for Rocky Flats FYR

All:

As a result of discussions in the last FYR Team meeting, I revised the protectiveness statement (below). Feel free to make any changes or add comments directly in this email and send back to me no later than this Wednesday, March 8, if possible.

I've also attached Appendix F, *Documents Reviewed*, which is a simple list of documents reviewed for this FYR. I used the 2001 EPA guidance document to decide which documents should be included in the list. Feel free to comment on this Appendix as well.

*The remedy at the COU is protective of human health and the environment. Institutional controls are in place and effective in preventing unacceptable exposures by prohibiting building construction, controlling intrusive activities, restricting use of groundwater and surface water, and protecting engineered remedy components. Physical controls are in place and effective at controlling site access. Surface and groundwater monitoring provides assurance that water quality at the COU boundary is protective. Routine inspections of engineered remedy components ensure that remedy maintenance and repairs are identified and implemented in a timely manner. Groundwater treatment systems continue to reduce contaminant load to surface water. Optimization of groundwater treatment systems is occurring to further reduce contaminant concentrations entering surface water.*

*In accordance with EPA guidance, because Rocky Flats is a construction complete site, a site-wide protectiveness statement is also required in the FYR report. Because the remedial actions at all OUs associated with the Rocky Flats site (COU, POU, and OU3) are protective, the site is protective of human health and the environment. The remedy in place at the COU is protective and the POU and OU3 continue to meet the conditions for UU/UE.*

P.S. I will be forwarding the revised Question B section and Appendix C, Risk Review (with tracked changes) for your review either later today or tomorrow.

*Patty*

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